

Inventors : Pilgrim G.W. Beart et al
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REMARKS

Reconsideration of the above identified patent application is respectfully requested. After the amendment, claims 1-3, 6-7, 11-15, 19-22, 24-28, 30-31, 38-39, 43, 52-59, and 63-64 should be pending in the application. Claims 1-3, 6-7, 24-28, 30-31, 38-39, 52-59 are amended and claims 63-64 are added to more particularly point out and distinctly claim the subject matter of the present invention. The rejection under 35 U.S.C. 103(a) as conceivably applied to the amended claim is respectfully traversed.

I. Examiner Interview

Applicant thanks Examiner Wendell for the courtesies extended to Applicant's attorney during the telephone interview conducted on March 26, 2010. During the interview, we discussed some possible amendments to overcome the prior art of record. Examiner Wendell suggested that Applicant focus more on the physical/mechanical swapping of the original cover with the conventional cover. Independent claims 28 and 38, are amended in this Response to emphasize this feature as suggested by the examiner.

II. Summary of the Invention

Amended claim 1 is directed to an inductive power receiving apparatus including a cover adapted to be fitted to a separate portable electronic device. The cover extends over a side of the portable electronic device to form an extension portion. The extension portion carries inductive-power receiving apparatus power connectors that connect to an inductive power-receiving element incorporated within or applied to a face of the cover portion.

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Amended claim 28 is directed to an inductive power receiving apparatus including a replacement cover, an inductive power-receiving element incorporated within or applied to a face of the cover, and one or more inductive power-receiving apparatus power connectors. The inductive power-receiving apparatus is configured to replace a conventional battery compartment cover of the portable electronic device such that the portable electronic device that is not able on its own to receive power wirelessly by electromagnetic induction is transformed into a portable electronic device that is able to receive power wirelessly by electromagnetic induction.

Amended claim 38 is directed to a method of adapting a portable electronic device having no inductive power receiving capability to have such capability. The method includes detaching a conventional replaceable cover portion, attaching a different replaceable cover portion having an inductive power-receiving element to the device to form the rear of the battery compartment, connecting one or more power connectors to corresponding power connectors of the portable electronic device. The different replaceable cover is configured to replace the conventional replaceable cover portion such that the portable electronic device that is not able on its own to receive power wirelessly by electromagnetic induction is transformed into a portable electronic device that is able to receive power wirelessly by electromagnetic induction.

Amended claim 54 is directed to an inductive power receiving apparatus including a cover, an inductive power-receiving element, and a power connector part. The inductive power-receiving element is incorporated within or applied to a face of the cover. The power connector part carries one or more device power connectors that connect to one or more

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corresponding power connectors of the portable electronic device. The power connector part is connected rigidly or semi-rigidly to the inductive power receiving apparatus and fitting the cover onto the electronic device automatically brings the one or more device power connectors of the power connector part into electrical connection with corresponding power connectors of the portable electronic device.

III. Prior Art Rejection

As previously presented, claims 1-3, 6-7, 11-15, 19-22, 24-28, 30-31, 38-39, 43, 52-59 were rejected under 35 U.S.C. 103(a) as being unpatentable over PCT Publication WO 96/02879 to Kikinis et al in view of U.S. Publication 2005/0192062 to Mickle et al and in view of U.S. Patent 7,392,068 to Dayan.

Each of the pending independent claims have been amended in view of the examiner interview in order to address the examiner's rejections in the previous Office Action. Applicant believes that the examiner's previous rejections are moot in view of the amendments presented in this Response. Below, Applicant briefly traverses each of the examiner's rejections to point out the differences between the claimed invention and the prior art of record.

The μ PDA of Kikinis is entirely different from the claimed subject matter in amended claims 1, 28, 38, 54. The μ PDA of Kikinis does not supply power to the host computer. Quite to the contrary, the μ PDA is powered by the host computer to recharge its battery 15. Consequently, the power flow in Kikinis is directly opposite to the power flow of the apparatus and method defined in these claims. So, the μ PDA in Kikinis always requires power

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whether it comes from the host computer or from the solar panel to charge the battery 15 within the μ PDA. The μ PDA does not provide power to any other device.

Mickle is cited only for its disclosure of an apparatus adapted to receive power wirelessly through an RF signal. The Office Action concedes that Kikinis and Mickle both fail to teach an inductive-receiving element for use with a separate device that is not able on its own to receive power wirelessly, where the inductive-receiving element delivers power received to the device. The Office Action cites Dayan for this feature.

The Dayan notebook computer 112 includes an adaptor unit 118 described in Fig. 9 and Col. 8 Lns. 17-34 as follows:

FIG. 9 shows one case in which an adaptor unit or piece 118 is releasably secured to a notebook computer 112. The notebook computer 112 is shown from a lower rear-end and includes a base section 114 and a lid section 116. As can be seen in FIG. 9 of the drawings, the notebook computer 112 is slightly opened with the lid section 116 spaced from and hingedly connected to the base section 114. The adaptor piece 118 is attached to an underside of the base section 114 using, for example, hook-and-pile fasteners, mounting tape, or any other suitable fastening arrangement including but not limited to screws, bolts, glue, cement, snaps etc. The adaptor unit 118 has, in this example, three separate areas 120, 122 and 124 as can be seen. The areas 120 and 124 may be conductive surfaces and the area 122 may be an insulator. A cable 126 is used to connect the adaptor unit 118 to the notebook computer 112 via a regular power supply port of the notebook computer 112.

The Dayan notebook computer 112 can be charged a conductive mat as described in Fig. 8 and Col. 7 Lns. 61-64:

FIG. 8 of the drawings shows a desk 100 on which is placed a desk mat 102. The desk mat 102 includes a conductive area 12 with

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electrical contacts as described above. The desk mat 102 may be integrated into the desk 100.

With respect to amended independent claim 1, Applicant submits that none of the prior art of record discloses 1) a cover that extends over a side of the portable electronic device to form an extension portion; or 2) a cover extension portion that carries one or more inductive power-receiving apparatus power connectors. Dayan teaches an adaptor that can reasonably be viewed as a cover. However, the Dayan cover does not teach that the cover can extend over a side of a portable electronic device and form an extension portion. The Fig. 9 embodiment of Dayan illustrates that a separate cable is used to connect the adaptor to the power supply of the laptop, the Dayan adaptor does not extend over a side of the laptop. Neither Kikinis nor Mickle fill the gap. Accordingly, none of the prior art of record teaches a cover that extends over a side of a portable electronic device to form an extension portion that carries inductive power-receiving apparatus power connectors as recited in claim 1.

With respect to amended independent claims 28 and 38, Applicant submits that none of the prior art of record discloses either:

- an inductive power-receiving apparatus configured to replace a conventional battery compartment cover of a portable electronic device such that the portable electronic device that is not able on its own to receive power wirelessly by electromagnetic induction is transformed into a portable electronic device that is able to receive power wirelessly by electromagnetic induction; or
- a portable electronic device having a mechanical structure capable of releasably attaching a conventional battery compartment cover to the portable electronic device

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with one or more mechanical connectors and a replacement cover adapted to mechanically interact with the mechanical structure of the portable electronic device to releasably attach an inductive power receiving apparatus to the portable electronic device.

Dayan teaches an adaptor that attaches to the underside of a notebook computer, but the adaptor does not replace a conventional battery compartment cover. Neither Mickle nor Kikinis fill the gap. Accordingly, for the reasons mentioned above, Applicant submits that claims 28 and 38 are patentable over the prior art of record.

With respect to amended independent claim 54, Applicant submits that none of the prior art of record teaches 1) fitting a cover onto a portable device automatically bringing inductive power-receiving apparatus power connectors into electrical connection with corresponding power connectors of the portable electronic device; or 2) a cover having a power connector part that is connected rigidly or semi-rigidly connected to an inductive power receiving apparatus. Upon fitting the Dayan adaptor onto the laptop, a flexible cable must be manually connected to the notebook power port. Therefore, Dayan does not teach the automatic electrical connection or the rigid or semi-rigid connection feature recited in claim 54. Neither Kikinis nor Mickle teach an inductive-receiving element for use with a separate device that is not able on its own to receive power wirelessly and therefore cannot teach the automatic connection or the rigid or semi-rigid connection recited in claim 54.

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For the foregoing reasons, it is respectfully submitted that the rejection of independent claims 1, 28, 38, and 54 under Section 103(a) on the basis of Kikinis, Mickle and Dayan is unfounded and/or overcome, and therefore should be withdrawn.

The dependent claims further define the invention and are therefore allowable at least for the reasons set forth above in conjunction with their respective independent claims. Additionally, the dependent claims provide a variety of additional recitations supporting patentability.

Specifically, dependent claim 2 recites that the power connectors of the portable electronic device are inaccessible when the inductive power receiving apparatus is attached to the portable electronic device. Dependent claim 3 recites that the cover includes a mechanical attachment arrangement adapted to attach the power-receiving element mechanically to the device to cover at least a portion of the battery compartment when the apparatus is in use. Dependent claim 7 recites that the mechanical attachment arrangement includes a rigid connection between the power-receiving element and at least one of the power connectors of the portable electronic device. Dependent claims 24-26, 31, 55-57 recite variations of a pass-through feature not included in any of the prior art of record. Dependent claim 27 recites that the side of the portable electronic device that the extension of the cover portion extends over is the bottom end of the portable electronic device. Dependent claim 30 recites that the one or more inductive power-receiving apparatus power connectors are adapted to be interposed between battery terminals of a battery and the one or more portable electronic device power connectors. Dependent claim 39 recites that the cover is a replacement cover configured to replace a

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conventional battery compartment cover of the portable electronic device such that the portable electronic device that is not able on its own to receive power wirelessly by electromagnetic induction is transformed into a portable electronic device that is able to receive power wirelessly by electromagnetic induction. Dependent claims 53 and 59 recite that the cover is a skin for the portable electronic device. Dependent claim 63 recites that the replacement cover includes a cover portion and an extension of the cover portion, the cover portion covering at least a portion of the rear of the separate portable electronic device, wherein the extension of the cover portion extends over a side of the portable electronic device, wherein the one or more inductive power-receiving apparatus power connectors being carried by the extension of the cover portion wherein the extension of the cover portion allows the inductive power-receiving apparatus power connectors to connect electrically to the power connectors of the portable electronic device. Dependent claim 64 recites that attaching the different replaceable cover portion automatically brings one or more power connectors of the inductive power receiving apparatus into electrical connection with one or more corresponding power connectors of the portable electronic device.

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IV. Conclusion

In view of the above amendments and these remarks, it is respectfully submitted that the present application is in condition for allowance. A notice to that effect is earnestly and respectfully requested.

Respectfully submitted,

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